Nutrition News

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METHODS OF CHANGING FOOD HABITS

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Food habits, like any other habits of human beings, can be understood and modified only when they are seen as part of the total cultural setting in which they exist.

The understanding of food habits requires appreciation of personal psychological problems linked with foods; an awareness of religious or social customs, taboos and values related to food; a familiarity with economic factors—of availability, production, costs; perhaps an acquaintance with the effects of propaganda and advertising appeals on public attitudes and behavior toward food. Too, nutritional values of foods must concern the person interested in changing food habits.

A number of psychological studies on food habits are reviewed which had as their objectives (1) to investigate the factors important in determining present food habits and study resistances to changes, and (2) to develop effective methods of changing food habits.

Much of this research was initiated by the late Dr. Kurt Lewin in his studies for the Committee on Foods of the National Research Council.

Present Habits and Change

Present food habits are important in changing only when knowledge of them casts light on the psychological meaning which particular foods or food in general have for the persons or groups. Facts about what is eaten are practically useless unless they indicate why foods are accepted or rejected. For example, borscht is rejected by some as "old country" food and cultivated by the would-be gourmet.

In this form, the data give the educator a diagnosis of the persons he hopes to change and help him in the planning of an effective educational program. The findings indicate the persons' values regarding foods and predict the nature of resistances.

Experimental studies where actual changes in the use or disuse of specified foods were attempted show certain consistent results about the effect of various educational methods. The subjects were mothers of newborn infants whose feeding schedule was to be influenced, housewives whose families' milk consumption was to be increased, and junior high school students who were to be influenced to choose a nutritionally adequate school lunch.

Three Methods

The methods compared were (1) individual instruction. A nutritionist met each subject individually to give her nutritional information; (2) the lecture method. The nutritionist met with small groups of mothers, housewives, or students, discussed the nutrition program, and asked them to change in specified directions; (3) a group method of discussion-decision. The effectiveness of each method was measured by the number of subjects making the desired change in food habits immediately after and several months after the experiment. The discussion-decision method in all experiments was superior to both individual instruction and lecture.

There are the following steps in the discussion-decision method: (1) The nutrition problem is discussed with a small group similar in age, background, etc. (2) The discussion is led by a group leader who, keeping in mind the group members' values and habits, guides but does not dominate the discussion. She gives technical information and helps the group to face the obstacles which stand in the way of change. Thus, the mother who cannot get her children to drink enough milk gets the help of other mothers who suggest ways of including milk in the diet. (3) The group leader asks the group, after thorough discussion, to

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make some decision for action about the foods discussed. The decision is an extremely important part of the procedure, for through it members link their discussion and their motivation to change to a definite, committing action.

The discussion-decision meetings have no high-pressure leadership which "railroads" the decision through or which fires the group to emotional enthusiasm which is likely to be only passing.

Widely Applicable

This group method promises to be applicable in widely different circumstances involving groups. The peculiar dietary whims, food aversions, or addictions met in the clinic pose special problems, but the principles evolved in the group settings have application to the individual case, too.

The experiments on change indicate that knowledge isn't enough to change behavior, but motivation linked to the individual's own decision in a group setting to do something leads more frequently to that change.

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Glances AT NUTRITION RESEARCH

As the world searches for the most economical way of insuring adequate nutrition, food research assumes added significance, interest, and importance. Reviewed here are developments claiming the attention of nutrition leaders:

Efficient Use of Food — In the face of world famine the efficiency of using grain and other plant sources of food for animal feed is questioned. Studies have been made which compare milk, pork, eggs, poultry, beef, and lamb on the basis of (a) efficiency of human food production, (b) consumption of foods which man can use directly, and (c) over-all nutritive value of the animal product.

Findings show that market milk production should have first priority on feed supplies available, with butter rating the same if the skim milk is recovered for human use. Egg production is above pork, but broilers rate very low. Beef cattle and sheep rank high so long as their production is based on the use of range and roughage without large amounts of concentrate.

—J. Nutrition 32:345 (Oct.) 1946.

Vitamin Synthesis and Diet — At Cornell University intestinal synthesis of thiamine and riboflavin was studied in women subjects on diets, equivalent nutritionally, but composed of different types of foods. A mixed diet of natural foods resulted in more synthesis of riboflavin than did a diet of synthetic foods. Whether or not the additional riboflavin could be utilized by the body could not be determined.

—J. Nutrition 32:1 (July) 1946.

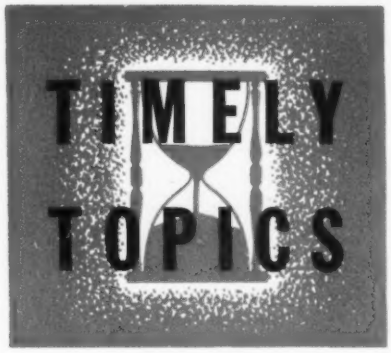
Acids Damage Teeth — Recent observations at the Mayo Clinic, Rochester, Minnesota, indicate extensive damage to teeth from the increasing use of lemon juice and various other kinds of acids. It appears that marked dissolution of tooth structure may occur from drinking lemon juice, particularly if the juice is taken daily and at times other than with meals.

Some Cola-type beverages have a ten percent content of phosphoric acid. Although destruction of enamel by acids varies with individuals, some injury has been observed which is believed caused by habitual use of acid beverages. Continued vomiting and therapeutic administration of hydrochloric acid, topical application of acids, and acids in confections may have similar damaging effects on tooth structure.

—J. Am. Dent. Assn. 34:586 (May) 1947.

Milk Intake Increased — The effect of free, mid-morning milk on total milk consumption of hospital employees has been studied by the Miami Valley Hospital, Dayton, Ohio. Each morning a half pint of milk is offered free to every employee who wants it. An interview with a cross section of employees reveals that the "silent milk campaign" has had three effective results: Ten percent have begun drinking milk just since it was made available in the morning; twenty-three percent would consume no milk at all otherwise; and twenty percent would not get their recommended daily allowance without the free mid-morning milk.

—J. Am. Diet. Assn. 23:701 (Aug.) 1947.



Dr. Radke

Dr. Marian Radke, the author of this issue's lead article, has an impressive record of research on attitude developments and experiments on changing attitudes and behaviors. Her research in the area of food habits include studies of children, mothers of young children, and homemakers. Dr. Radke did undergraduate work at the University of Wisconsin and received her doctorate from the University of Minnesota.

Survey of Research

A comprehensive survey of current nutrition research in the United States is underway. The Food and Nutrition Board with support of the Quartermaster Food and Container Institute for the Armed Forces will compile records and correlate such studies with regard to health, acceptability, stability, utility, and economy of foods. Sources of information include industry, universities, government, and others. A roster of personnel in research is being developed also.

Nutrition Service

The Nutrition Programs office of the Production and Marketing Administration, U. S. D. A., Washington, D. C., is still operating, but on a restricted basis. Originated to mobilize and coordinate nutrition groups so everyone could have information on nutrition, the program is still one of service. The office is a clearing house for exchange of information. It maintains a channel of contact with international, federal, state, and local nutrition groups.

NUTRITION CLINIC DIRECTOR AIDS VETERANS BY DIET ANALYSES, PERSONAL INSTRUCTION

By Martha F. Trulson, Chief Nutritionist, Regional Office Veterans Administration, Chicago, Ill.

The ex-service man applying for treatment at the Regional Office, Veterans Administration, Chicago, will find the added service of nutritional advice and diet therapy available to him. Last February the Nutrition Clinic was established in the Out-Patient Department where men with service-connected disabilities are eligible for treatment.

The nutritionist's work supplements that of the physician, and the patient is referred to the nutritionist by the physician. Often the medical officer wants patients to learn methods of selecting an adequate normal diet, or he may ask for an appraisal of a patient's dietary status. Veterans whose ailments would be benefited by nutritional advice constitute the vast majority of those consulting the nutritionist.

As in any Out-Patient Department, the patients come from many different clinics. A large percentage of the veterans are sent to the nutritionist because of gastro-intestinal disabilities, such as ulcers, colitis, dysenteries, hepatic disorders and diabetes.

Weight Control

Veterans may be referred from the Orthopedics Clinic for advice and help in weight control. Since emotional outlook figures in such treatment, as well as that for many gastro-intestinal complaints, part of the nutritionist's task is to obtain the patient's confidence. To give helpful advice she needs an accurate dietary analysis. Diabetic patients are given re-education about their diets or are instructed in new diet changes.

In all cases, with all treatments the patient is always given individual diet instruction. Racial, social, and economic factors make the use of any standard diet form impossible. First, data for a dietary history is taken, the patient's customary diet is determined. Then the dietary advice is adjusted to conform to his pattern of living.

Personal Instruction

Likewise, the methods of instruction are not standardized, but vary with the veteran. They depend on his previous experience and background. Just as the use of routine, printed diet sheets are avoided, the only printed material that is given to the patient without individual modification is the food composition equivalent tables. Posters, pamphlets, and food models are used as teaching aids but not indiscriminately for decorative purposes. Food models are never used in taking dietary histories since they are suggestive to the patient and decrease the accuracy of the history. They may be used in giving dietary selection advice.

The nutritionist records her findings on the patient's regular medical treatment record. In addition, she maintains her own file in the Nutrition Clinic. The second file enables the nutritionist to make a statistical study of the clinic work, to help judge results of her teaching, to evaluate different teaching methods, and to determine what changes should be made to better the clinical results. There is no guess work concerned with treatment administered.

Future Appointments

The patient's future appointments with the nutritionist are made to coincide with his return visits to the physician managing his case. However, the nutritionist may make the return appointment herself if close supervision is needed both by her and the physician.

The Nutrition Clinic is intended, also, to serve as a training center for student dietitians and staff dietitians from Veterans Administration Hospitals and Offices of the Branch 7 Area who wish to obtain additional training in nutrition clinic work. At the present time, about 10,300 veterans visit the Out-Patient Department each month. The number of patients referred to the Nutrition Clinic is steadily increasing.

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SCHOOL LUNCHROOM MANAGER CONTRIBUTES TO HEALTH OF THE NATION'S CHILDREN

By Constance C. Hart, Director of School Lunchrooms Board of Education, Rochester, N. Y.

Although a person's state of health is dependent on numerous factors, it is evident that the diet, or the daily food intake, is one of the important determining factors.

Food must meet the body requirements for energy, for building and repair of tissue, and for regulation of body processes. These requirements are specific and may be established with some degree of accuracy. Experimental studies show that the addition of even a single food to the diet can change the entire physical status of the child.

The physical signs of good nutrition may be easily recognized in children: The child is active, his skin is clear and smooth, and his eyes are bright.

How can the manager in the school lunchroom do her bit to enable children to have a maximum amount of health through the food she serves in her school lunchroom? First, she will plan her menus around the seven basic foods. She not only will see that the right kind of food is offered, but will also see that the food is properly cooked and served so that the children will want to buy it.

Method of Preparation

She will have to watch carefully the method of preparation of the food. Not only must she prevent loss of the nutrients, but she must get the greatest yield from each recipe and make sure there is not one bit of waste in her lunchroom.

With the high cost of food and especially the high cost of protein food which is so very necessary for the growing child, she will have to select and combine various proteins so that they will be adequate for school children. The manager will realize that although eggs and meat are expensive at the present time they should not be eliminated from the diet. They might

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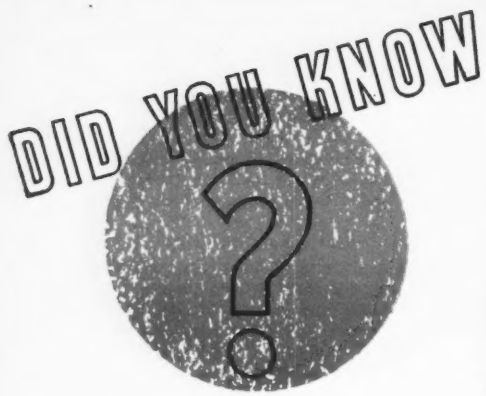

—that a new and tempting kind of fudge is being made which is nearly half sweetened, condensed whey—a by-product in cheese production?

—that a quart of milk can now be delivered from a thousand feet straight up? The container is corrugated with "wings" which flap open when dropped. Will not break or spill.

—that a new wrinkle for drive-in theatres is electric milk bottle warmers for patrons who bring Baby along to sleep in the back seat?

—that cheese is being packaged in half-moon shaped plastic containers adaptable for other uses?

—that a dripless, plastic pouring spout, attachable after the milk bottle cap has been removed, is on the market?

—that a big, all-cargo clipper could fly you enough butter to spread your breakfast toast for the next ten million mornings?

—that a dairy cow gets the benefit of 150 more man-hours of labor per year than any other farm animal?

—that diabetics can now enjoy ice cream too? A new Wisconsin law sets standards for a special ice cream sweetened solely with saccharine.

THINGS YOU'LL LIKE TO READ

The scientific basis for improving nutrition is described in Tom D. Spies' **Rehabilitation Through Better Nutrition** (Philadelphia: W. B. Saunders Company. 1947.) The author emphasizes the goal of full rehabilitation in nutritive therapy. He gives only those facts which seem essential for restoring good health in every patient with nutritive failure.

Calcium and Phosphorus in Foods and Nutrition by Henry C. Sherman. (New York: Columbia University Press. 1947.) Here is a concise account of 40 years' accumulation of knowledge about calcium and phosphorus. Sherman discusses the quantitative distribution in the body and in foods and the nutritional function assigned to them. The book will find use among teachers, students, and professional workers in the fields of nutrition and dietetics.

This year's report of the American Public Health Association Committee on Milk and Dairy Products is a study of **Food Values of Dairy Products as Affected by Methods of Handling in Production, Distribution, and Use.** (Am. J. Pub. Health 37:9 [Sept.] 1947.) The object of the committee survey was to determine what effect such factors as the ration of the cow, light and heat, pasteurization, evaporation, boiling, drying, storing, and processing might have on the riboflavin, thiamine, and vitamin A content of dairy products.

Two articles related to this issue's lead article which enumerate and explain the causes and complexitives of food habits have been published recently. They are **Experiments in Changing Food Habits** by Marion Radke and Dayna Klisurich (J. Am. Diet. Assn. 23:423 [May] 1947.) and **Factors Influencing Food Acceptance** by Ercel S. Eppright. (J. Am. Diet. Assn. 22:7 [July] 1947.) The consideration of methods employed to revise eating habits indicates the effectiveness of group decision methods and group feeding procedures.

SCHOOL LUNCHROOM MANAGER CONTRIBUTES TO HEALTH OF THE NATION'S CHILDREN

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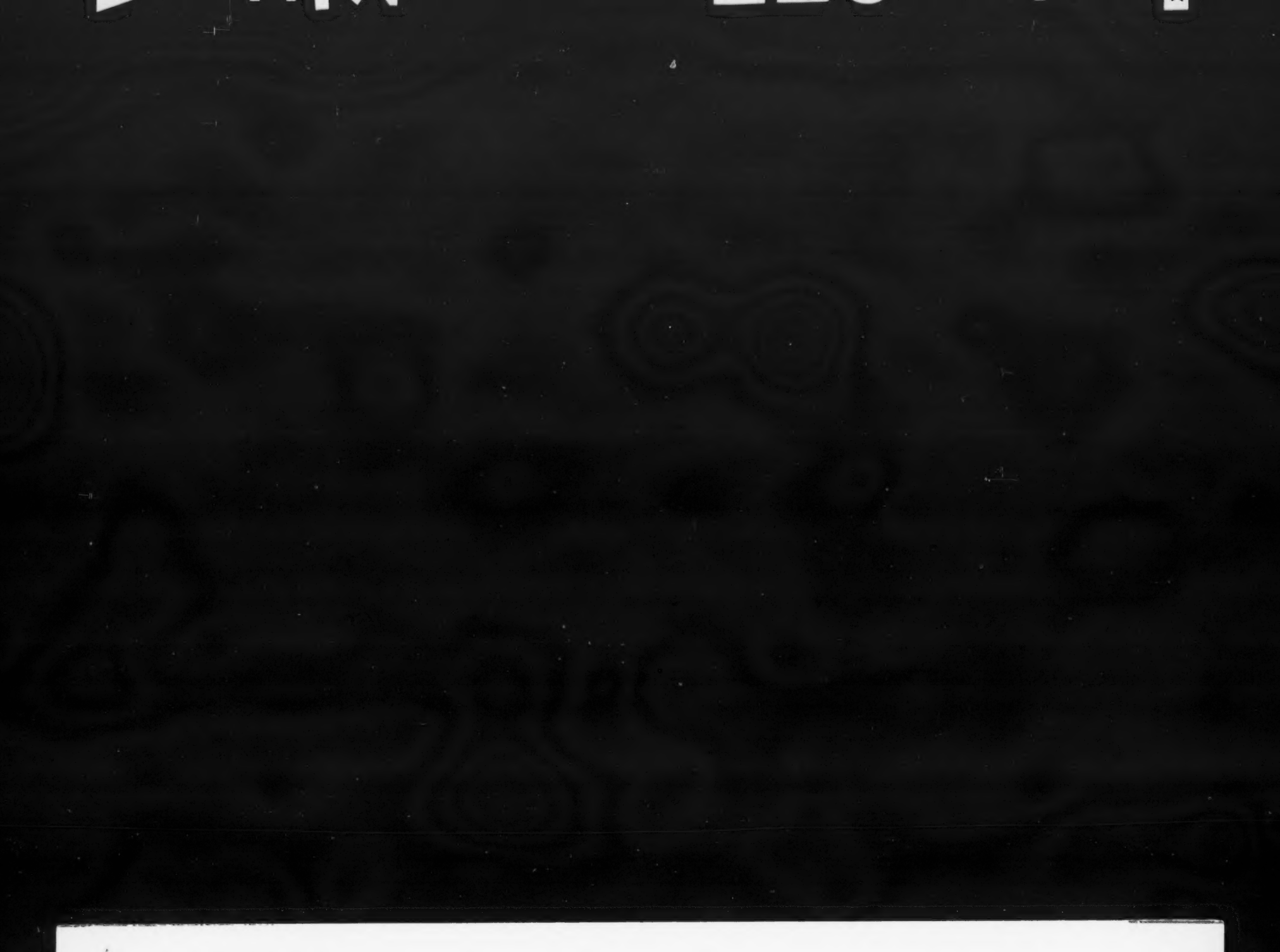
be combined with some of the less expensive proteins to bring down the cost to the price that children eating in the school lunchroom can afford to pay. It may be that the manager can plan her menus so that fish will be served one day, dried beans or peas or lentils another day, and a cheese dish still another day. This will give her an opportunity to use eggs and meat the other two days.

She will give the children some choice to teach them how to select food. She will offer raw, crisp vegetables as part of their plates. She will offer milk in as many forms as possible—as a beverage, in creamed soups, or in creamed dishes. She will realize that by constant repetition and constant participation in eating food of the right kind and type she can help the children form good habits.

The wise manager will introduce new foods with care, presenting them with popular foods on the plate lunch. She will pay particular attention to the color scheme and texture of the foods she serves, realizing that children select food with their eyes. She not only has to plan the right kind of food, but also use salesmanship in displaying and selling the food. She will employ people who are interested in children and who will encourage children to select food wisely.

The manager knows that the schools need to assume a definite responsibility to insure a good school lunch program, either by making it available at school or by educating and supervising children to bring properly prepared lunches from home. With this, schools must teach good nutrition in the classroom, or the nation will continue to have a high proportion of poorly nourished children that are unable to benefit by the educational program in the school; children who will not be mentally or physically equipped to assume their responsibility as useful, productive citizens.